

AMENDMENTS TO THE CLAIMS

In the Claims:

Please cancel claims 3-17. Please enter new claims 20-48 and amend claim 1 as follows:

1. (currently amended) A process for delivering a polynucleotide to a cell comprising consisting essentially of:
 - a) adding a metal cation to a chelator containing solution, wherein the metal cation is coordinately bound by the chelator;
 - a b) forming a complex consisting of adding a polynucleotide and a chelator into the solution of step a) to form a complex, wherein electrostatic interaction- an association of the chelator with one or more components of the complex the polynucleotide requires the presence of a metal ion- cation coordinated coordinately bound by the chelator; and,
 - b c) delivering the complex of step b) to the cell, wherein the delivery of the polynucleotide to the cell is enhanced by the cation-dependent association of the chelator with the polynucleotide.

2-17. (canceled)

18. (withdrawn)

19. (withdrawn)

20. (previously added) The process of claim 1 wherein the chelator consists of a polychelator.

21. (previously added) The process of claim 1 wherein the chelator consists of a crown ether.

22. (previously added) The process of claim 20 wherein a plurality of chelators is covalently linked to a polymer.

23. (previously added) The process of claim 20 wherein the polychelator is formed by covalently polymerizing chelator monomers.

24. (previously added) The process of claim 20 wherein the polychelator condenses the polynucleotide.

25. (previously added) The process of claim 24 wherein condensation of the polynucleotide requires the presence of cations.

26. (previously added) The process of claim 1 wherein the chelator is covalently linked to a compound selected from the list consisting of: a hydrophobic group, a cell receptor signal, a releasing signal, and a steric stabilizer.

27. (previously added) The process of claim 1 wherein the polynucleotide is expressible.

28. (previously added) The process of claim 29 wherein the polynucleotide expresses a therapeutic gene.

29. (previously added) The process of claim 1 wherein the cell consists of an *in vivo* mammalian cell.

30. (currently amended) A process for delivery of a polynucleotide to a cell comprising:

- a) forming a complex consisting of a polynucleotide, and a primary amine-containing molecule; and
- b) adding a chelator to the complex of a) to form a new complex wherein the chelator forms a non-covalent coordinate bond with the amine on the molecule; and,
- b c) delivering the new complex to the cell.

31. (previously added) The process of claim 30 wherein the chelator consists of a crown ether.

32. (previously added) The process of claim 30 wherein the primary amine-containing molecule is a polyamine.

33. (previously added) The process of claim 30 wherein the primary amine-containing molecule is a polycation.

34. (previously added) The process of claim 30 wherein the chelator consists of a polychelator.

35. (previously added) The process of claim 34 wherein the polychelator consists of a polyanion.

36. (previously added) The process of claim 35 wherein the polyanion recharges the complex to give the complex a negative surface charge.

37. (previously added) The process of claim 34 wherein the polychelator consists of a polycation.

38. (previously added) The process of claim 30 wherein the chelator is covalently linked to a compound selected from the list consisting of: a cell targeting signal, a releasing signal, and a hydrophobic group.

39. (previously added) The process of claim 30 wherein the primary amine-containing molecule is selected from the list consisting of: a cell receptor signal, a releasing signal, a hydrophobic group and a steric stabilizer.

40. (previously added) The process of claim 30 wherein the polynucleotide is expressible.

41. (previously added) The process of claim 40 wherein the polynucleotide expresses a therapeutic gene.

42. (previously added) The process of claim 30 wherein the cell consists of an *in vivo* mammalian cell.

43. (currently amended) A process for delivering a polynucleotide to a cell comprising:

- a) forming a complex consisting of a polynucleotide, and a first molecule ~~and a second molecule~~ wherein one or more chelators are covalently linked to the first molecule
- b) adding to the complex of a) a solution containing and one or more metal ions and a second molecule, to which one or more chelators are covalently linked ~~to the second molecule~~, wherein coordination of a one or more metal ions by one or more of the chelators stabilizes the interaction between the first molecule and the second molecule; and,
- bc) delivering the complex of step b) to the cell.

44. (previously added) The process of claim 43 wherein the first molecule consists of a polycation and the second molecule consists of a polyanion.

45. (previously added) The process of claim 43 wherein the first molecule consists of a polycation, and the second molecule is selected from the list consisting of a cell receptor signal, a releasing signal, a hydrophobic group and a steric stabilizer.

46. (currently amended) The process of claim 30 45 wherein the polynucleotide is expressible.

47. (currently amended) The process of claim 40 46 wherein the polynucleotide expresses a therapeutic gene.

48. (currently amended) The process of claim 30 47 wherein the cell consists of an *in vivo* mammalian cell.